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REMARKS

Claims 21-35 are pending in the present application. Claims 1-20 were previously cancelled. Claim 30 has been amended. No new matter has been added.

Applicants acknowledge with appreciation that claim 30 would be allowable if rewritten in independent form, and has been rewritten in independent form as suggested.

Claims 21-23, 25-27, 31 and 33 were rejected under 35 U.S.C. § 102(e) as being anticipated by Gruening-Von Schwerin et al., and claims 21-22, 27-28, 29 and 34 were rejected under 35 U.S.C. § 102(b) as being anticipated by Wang, et al.

Applicants respectfully disagree, and submit that contrary to the Examiner's ascertations it is very clear that the Gruening-Von Schwerin et al. patent does not even suggest, much less teach, patterning the hard mask for forming contact holes on vias and then *re patterning the same hard mask* for forming trenches for conductor lines as required by the claims. More specifically, Figs 1A-1D and Figs 2A-2C clearly show and the corresponding text clearly describes that the hard mask M is completely patterned with openings 01, 02 and 03 in one etching operation. (See paragraph 0046, line 1; paragraph 0056, line 1 and paragraph 0057). These openings 01, 02 and 03 are then used for etching the insulation layer 55 to form contact holes or vias K₁, K₂ and K₃. In the embodiments discussed by Gruening-Von Schwerin et al. contact holes K₂ and K₃ are etched into insulation layer 55 after the etching of contact hole K₁, but the hard mask M is *never repatterned*. The Examiner alleges that paragraph 0058 discloses repatterning of layer M of the hard mask to define a conductor line trench 70. This simply is not what Gruening-Von Schwerin et al. discloses. The reference discloses that an *auxiliary layer HS* is patterned by lithography. However the auxiliary layer HS *is not* the same in layer

2002 P 09188 US

Page 6 of 9

Amendment Under 37 C.F.R. § 1.116

or materials as hard mask M. Therefore, it is clear that Gruening-Von Schwerin et al. does not even suggest much less teach "a hard mask that is used to pattern the contact hole is subsequently *repatterned* to define a conductor line trench ..." as is required by independent claim 21. Likewise, Gruening-Von Schwerin et al. does not disclose first "providing said hard mask patterned to form said contact hole" and then "*re patterning* said hard mask to form said conductor trench --- as required by independent claim 28. Therefore, it is respectfully submitted that independent claims 21 and 28 clearly are not anticipated by Gruening-Von Schwerin et al. under 35 U.S.C. § 102(b). Dependent claims 22, 23, 25-27, 29, 31 and 33 are also allowable for depending from a claim deemed allowable as well as for their own limitations.

Likewise, Wang, et al. does not disclose patterning a hard mask for forming contact holes or vias and then *re patterning the same hard mask* for forming conductive line trenches. Wang et al. patterns a first photoresist mask or layer 28 and then etches a contact hole or via through a first dielectric layer 24. The photoresist or mask 28 is then removed and layer 30 of a second dielectric material is deposited over the first dielectric and also fills the contact hole or via. A hard mask layer 32 is then patterned by a second photoresist layer 34 for forming the conductor line trench. The conductive line trenches are then etched in the second dielectric layer 30 and at the same time the second dielectric material 30 that filled the contact hole or via is also removed. This series of steps disclosed by Wang, et al in no way makes obvious the present invention under 35 U.S.C. § 103(a), much less anticipates the present invention under 35 U.S.C. § 102(b). Wang, et al. simply does not even suggest patterning a single hard mask to form contact holes or vias and then *re patterning* that same hard mask to form conductive line trenches as is

clearly required by both independent claims 21 and 28. Dependent claims 22, 27, 29 and 34 are also believed allowable for depending from a claim deemed allowable as well as for their own limitations.

Claims 23, 24, 26, 31-33 and 35 were rejected under 35 U.S.C. § 102(a) as being unpatentable over Wang, et al. in view of Carey or Matsuoka, et al. However, neither Carey nor Matsuoka, et al. discloses any information whatsoever that overcomes the shortcomings of Wang, et al, as was discussed above with respect to the independent claims 21 and 28. Therefore claims 23, 24, 31 and 32 are also allowable for depending from a claim deemed allowable as well as for their own limitations.

In view of the above, Applicants respectfully submit that this response complies with 37 C.F.R. § 1.116. Applicants further submit that the claims are in condition for allowance. No new matter has been added by this amendment. If the Examiner should have any questions, please contact Applicants' attorney at the number listed below. No fee is believed due in connection with this filing. However, in the event that there are any fees due, please charge the same, or credit any overpayment, to Deposit Account No. 50-1065.

Respectfully submitted,

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Date

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